#3

ARCHITECTURE

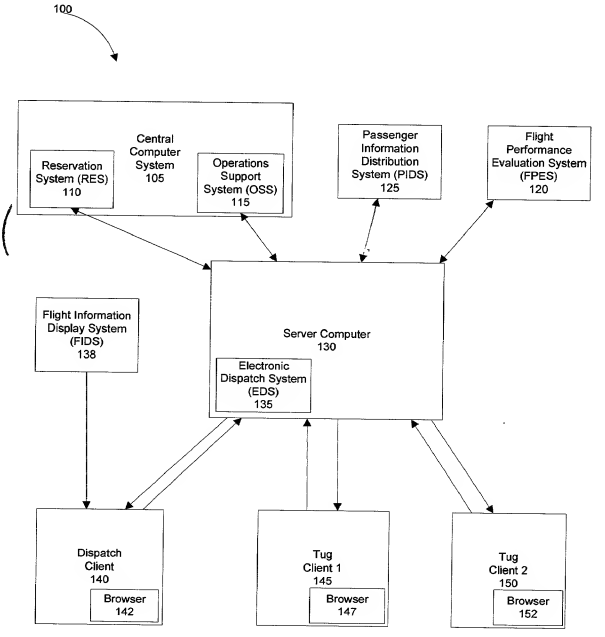


FIG. 1

09778230 "0234"

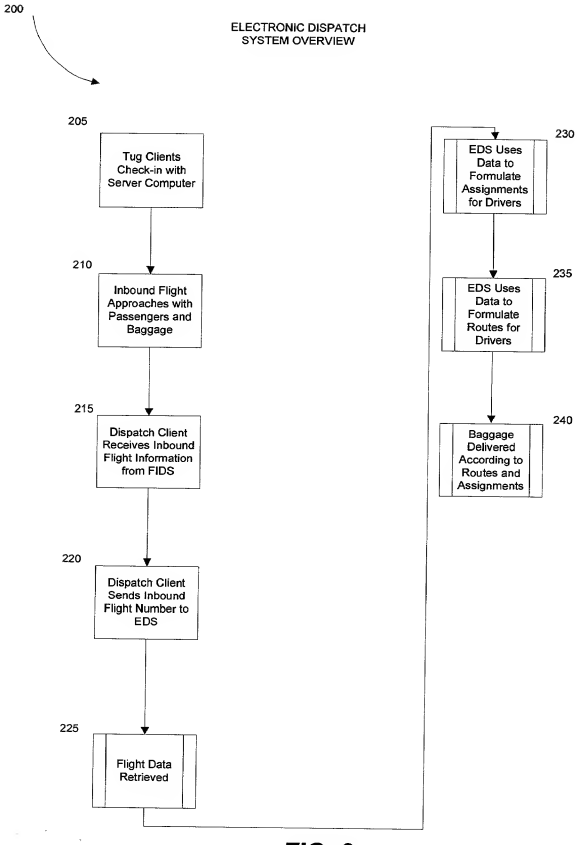


FIG. 2

09778220.042301

09/782,760 "Express Mail" 02/28/01

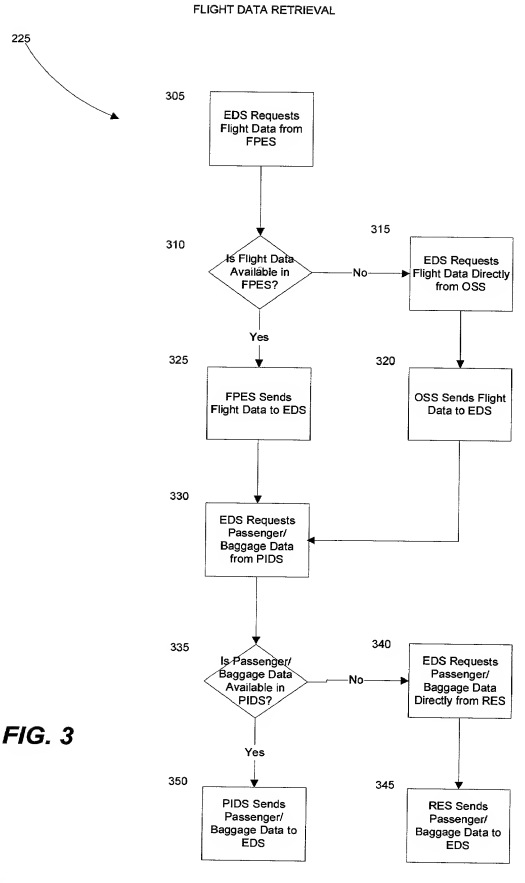
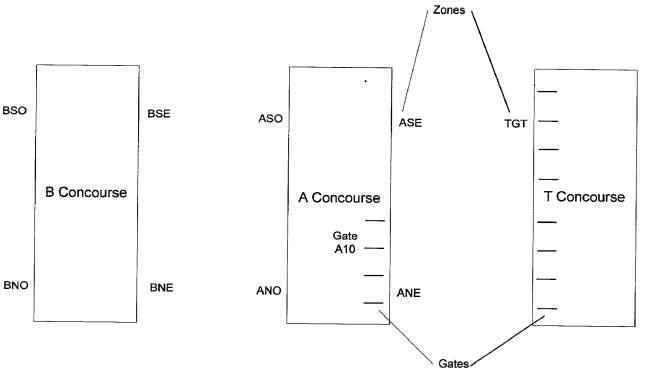


FIG. 3

BAGGAGE DELIVERY
ZONES



09782201.042301

FIG. 4

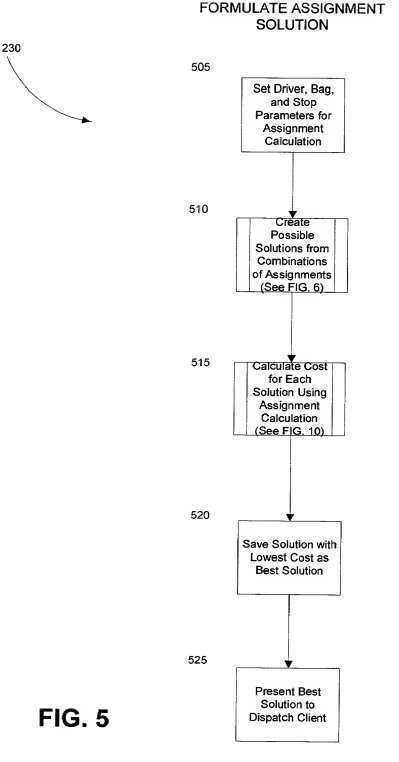

FORMULATE ASSIGNMENT SOLUTION
230
505
Set Driver, Bag, and Stop Parameters for Assignment Calculation
510
Create Possible Solutions from Combinations of Assignments (See FIG. 6)
515
Calculate Cost for Each Solution Using Assignment Calculation (See FIG. 10)
520
Save Solution with Lowest Cost as Best Solution
525
Present Best Solution to Dispatch Client

FIG. 5

US 2008/0228760 A1

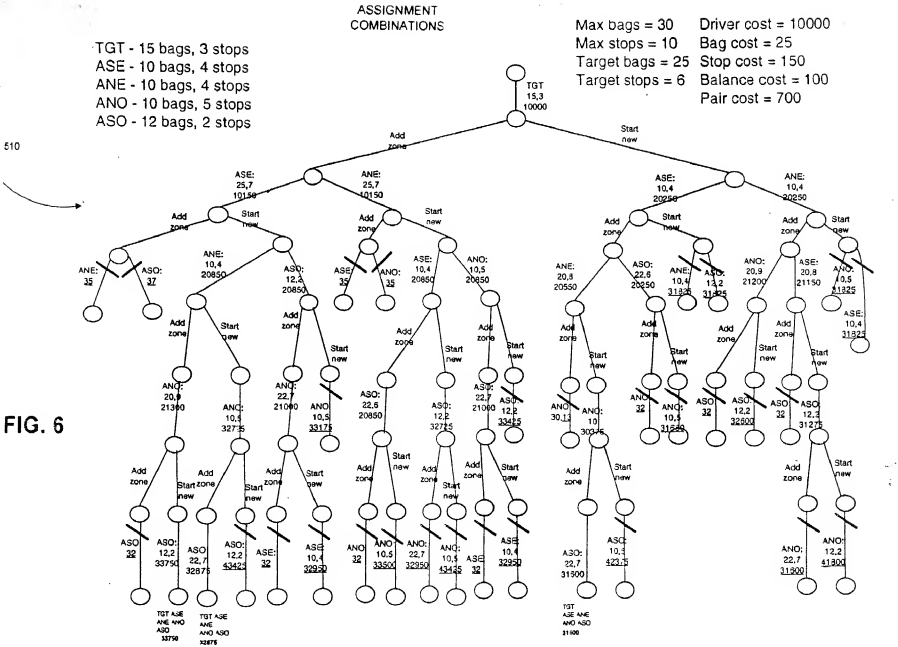


FIG. 6

TOC240-02287760

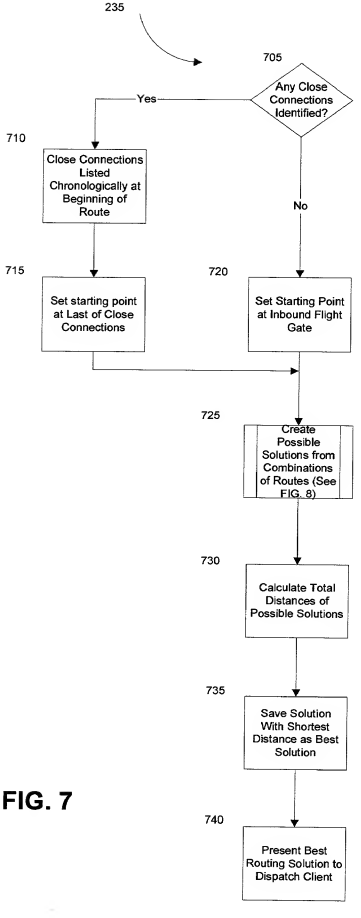


FIG. 7

T02H0 0228760

725

ROUTING COMBINATIONS

GATE	X,Y
A10	40,100000
A26	1030,100000
A2	0,100000
A6	20,100000
T4	30,0
T6	50,0
T5	40,0
A31	1060,110000
A3	10,110000

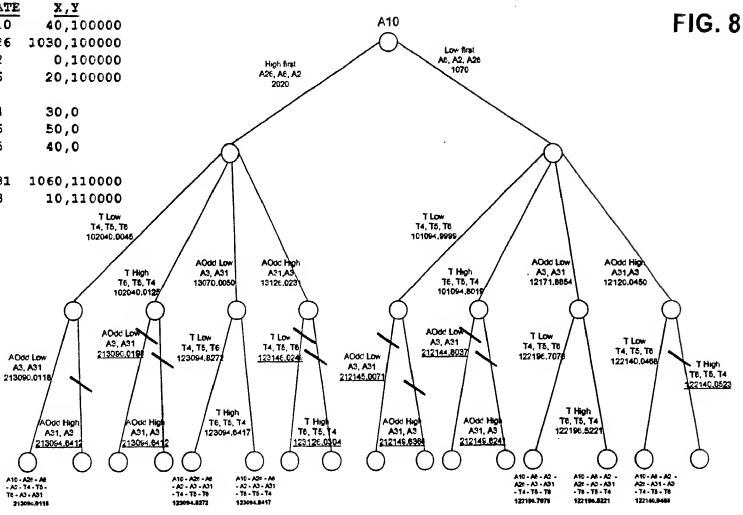


FIG. 8

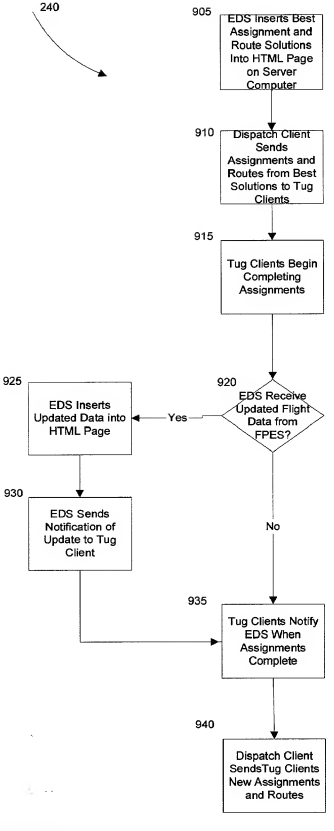

240
905
EDS Inserts Best Assignment and Route Solutions Into HTML Page on Server Computer
910
Dispatch Client Sends Assignments and Routes from Best Solutions to Tug Clients
915
Tug Clients Begin Completing Assignments
920
EDS Receive Updated Flight Data from FPES?
Yes
925
EDS Inserts Updated Data into HTML Page
930
EDS Sends Notification of Update to Tug Client
No
935
Tug Clients Notify EDS When Assignments Complete
940
Dispatch Client SendsTug Clients New Assignments and Routes

FIG. 9

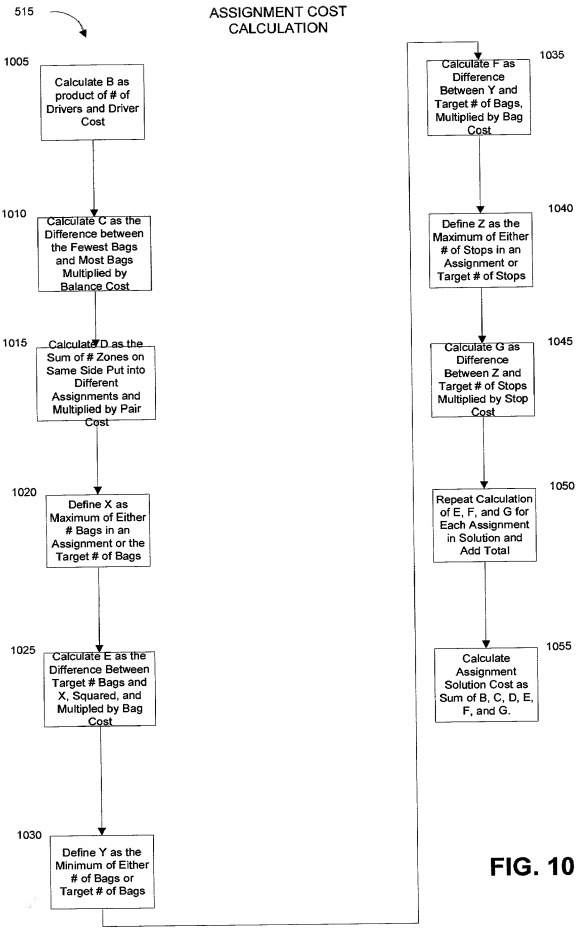

515
ASSIGNMENT COST CALCULATION
1005
Calculate B as product of # of Drivers and Driver Cost
1010
Calculate C as the Difference between the Fewest Bags and Most Bags Multiplied by Balance Cost
1015
Calculate D as the Sum of # Zones on Same Side Put into Different Assignments and Multiplied by Pair Cost
1020
Define X as Maximum of Either # Bags in an Assignment or the Target # of Bags
1025
Calculate E as the Difference Between Target # Bags and X, Squared, and Multipled by Bag Cost
1030
Define Y as the Minimum of Either # of Bags or Target # of Bags
1035
Calculate F as Difference Between Y and Target # of Bags, Multiplied by Bag Cost
1040
Define Z as the Maximum of Either # of Stops in an Assignment or Target # of Stops
1045
Calculate G as Difference Between Z and Target # of Stops Multiplied by Stop Cost
1050
Repeat Calculation of E, F, and G for Each Assignment in Solution and Add Total
1055
Calculate Assignment Solution Cost as Sum of B, C, D, E, F, and G.

FIG. 10